



PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(Patent Law Article 12, Implementing Regulation No. 56)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference 2634WOOP		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).	
International application No. PCT/JP00/05685	International filing date 24 August 2000	Priority Date 27 August 1999	
International Patent Classification (IPC) or national classification and IPC Int. Cl.⁷ C12N 15/09, C07K 14/705, C07K 16/28, C12N 1/15, C12N 1/19, C12N 1/21, C12N 5/10, C12P 21/02, C12P 21/08, C12Q 1/68, A61K 45/00, A61P 43/00			
Applicant TAKEDA CHEMICAL INDUSTRIES, LTD.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 3 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheet(s).</p>			
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>			
Date of submission of the demand 29 September 2000		Date of completion of this report 20 August 2001	
Name and mailing address of the IPEA/JP JAPAN PATENT OFFICE KASUMIGASEKI 3-4-3, CHIYODA-KU, TOKYO, JAPAN Postal Code 100-8915		Patent Office Examiner (Authorized Officer) JUNKO KIMURA Telephone No. (03) 3581-1101 ext. 3488	4N 9641

I. Basis of the report

1. With regard to the **elements** of the international application:*

- | | | | |
|-------------------------------------|---|-------|-----------------------------------|
| <input checked="" type="checkbox"/> | the international application as originally filed | | |
| <input type="checkbox"/> | the description, | pages | , as originally filed, |
| | | pages | , filed with the demand, |
| | | pages | , received on |
| | | | with the letter of |
| <input type="checkbox"/> | the claims, | pages | , as originally filed, |
| | | pages | , as amended under PCT Article 19 |
| | | pages | , filed with the demand,, |
| | | pages | , received on |
| | | | with the letter of |
| <input type="checkbox"/> | the drawings, | pages | , as originally filed |
| | | pages | , filed with the demand, |
| | | pages | , received on |
| | | | with the letter of |
| <input type="checkbox"/> | the sequence listing part of the description | | |
| | | pages | , as originally filed, |
| | | pages | , filed with the demand |
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2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under PCT Rule 23.1(b)).
- ☐ the language of publication of the international application (under PCT Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under PCT Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ Contained in the international application in printed form.
- ☒ Filed together with the international application in computer readable form.
- ☐ Furnished subsequently to this Authority in written form.
- ☐ Furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☒ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- | | | |
|--------------------------|------------------|------------|
| <input type="checkbox"/> | the description, | pages |
| <input type="checkbox"/> | the claims, | Nos. |
| <input type="checkbox"/> | the drawings, | sheets/fig |

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (PCT Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under PCT Article 14 (Patent Law Article 14) are referred to in this opinion as "originally filed" (PCT Rules 70.16, 70.17)

**** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report**

V. Reasoned statement under PCT Article 35(2) (Patent Law Article 12) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	YES
	Claims 1-14	NO
Inventive step (IS)	Claims	YES
	Claims 1-14	NO
Industrial applicability (IA)	Claims 1-14	YES
	Claims	NO

2. CITATIONS AND EXPLANATIONS (Rule 70.7)

Claims 1-14

The inventions of claims 1-14 do not have novelty over citation 1 (WO 98/46620, A1 (MILLENNIUM PHARMACEUTICALS, INC.) October 22 1998).

In citation 1, the amino acid sequence of a novel G protein-coupled receptor protein as well as the base sequence of DNA encoding the protein is described.

The amino acid sequence of a G protein-coupled receptor protein described in citation 1 has high homology with the amino acid sequence represented by SEQ ID NO:1 of the subject application. Therefore, as the invention of the subject application relates to a protein comprising an amino acid sequence that is substantially the same as the amino acid sequence represented by SEQ ID NO:1, it cannot be recognized that there exists a substantial difference between the invention of the subject application and the invention described in citation 1.

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